

PATENT

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69. (New) The integrated system of claim 68 wherein said computer network comprises a computer engine, database server, and file server.

70. (New) The integrated system of claim 68 wherein the steps of preparing a set of real oligonucleotides and performing at least one assay are performed robotically.

71. (New) The integrated system of claim 68 wherein each of said at least one property is a physical, chemical or biological property.

72. (New) The integrated system of claim 68 wherein said computer network reduces the members of said virtual library of oligonucleotides by eliminating members based on a set criteria.

73. (New) The integrated system of claim 72 wherein said computer network reduces the members of said virtual library of oligonucleotides by a process of selection based on a uniform distribution of oligonucleotide compounds across said selected nucleic acid.

74. (New) The integrated system of claim 72 wherein said computer network reduces the members of said virtual library of oligonucleotides by a process of selection based on targeting a functional region of said selected nucleic acid.

75. (New) The integrated system of claim 74 wherein said functional region is the transcription start site, 5' cap, start codon, 5'UTR, 3'UTR, stop codon, 5' splice site or polyadenylation site.

76. (New) The integrated system of claim 68 wherein said computer network applies selected chemical modifications to said virtual oligonucleotide compounds to generate chemically modified virtual oligonucleotides.

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77. (New) The integrated system of claim 68 wherein said selected nucleic acid is genomic DNA, cDNA, polymerase chain reaction product, expressed sequence tag, mRNA or structural RNA.
78. (New) The integrated system of claim 68 wherein said selected nucleic acid is a human nucleic acid.
79. (New) The integrated system of claim 68 further comprising a second assay apparatus selected from the group consisting of liquid chromatography, optical density reader, mass spectroscopy, gel fluorescence and scintillation imaging, and capillary gel electrophoresis.
80. (New) The integrated system of claim 68 wherein said property is modulating said selected nucleic acid.
81. (New) The integrated system of claim 68 wherein said computer network searches at least one database for nucleic acids homologous to said selected nucleic acid.
82. (New) The integrated system of claim 68 wherein said computer network searches at least one database for alternative transcripts.

REMARKS

Claims 47, 48, 50, and 52-67 have been cancelled without prejudice, and new claims 68-82 have been added herein. Upon entry of the present Amendment, claims 68-82 will be pending.

Applicants have amended the specification, pursuant to the request in the Office Action, to remove the hyperlink at page 57.

The only rejection outlined in the Office Action dated November 6, 2000 is a rejection of the pending claims under 35 U.S.C. §112, first paragraph as allegedly containing subject matter that was not described in the specification in such a way as to reasonably convey that the inventors had